

Deployment Quarterly

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U.S. DEPARTMENT OF DEFENSE
Deployment Health
Support Directorate



spring 2003

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On the Cover

Airman First Class Gilmer Williams, of the 379th Aircraft Expeditionary Maintenance Squadron at Al Udeid Air Base Qatar, performs an after burner inspection before a training sortie.

U.S. Air Force photo by Master Sgt Terry L. Blevins



U.S. Navy photo by Photographer's Mate Airman Dustin Howell

A "Shooter" gives the signal to launch an F/A-18C Hornet from the "Blue Diamonds" of Strike Fighter Squadron One Four Six (VFA-146) from one of four steam driven catapults on the flight deck of the aircraft carrier USS Carl Vinson (CVN 70). Carl Vinson is currently on deployment in the western Pacific Ocean.

In Search Of. Researchers at the Walter Reed Army Institute of Research hope to develop a new, improved anthrax vaccine.

Pet Foster Homes. Pet fostering may offer a solution to deploying troops needing a temporary home for their pets.

Be Prepared. Office of Homeland Security officials offer keys to emergency preparedness tips on its Web site, *Ready.Gov*.

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Pest Management. Navy entomologists focus on pest control, education and surveillance to keep Marines, sailors and soldiers bug-free.

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'We Are Ready'

by g.w. pomeroy
air force surgeon general public affairs

Improvements in the deployment process since the 1991 Gulf War have resulted in a more fit and healthy fighting force, the Air Force surgeon general told a House committee March 27.

"Our military now finds itself engaged in war on multiple fronts — in fact, a greater percentage of our troops are deployed, in more locations, for longer periods of time, than at any time since the Vietnam War," Lt. Gen. (Dr.) George Peach Taylor Jr. told the House Armed Services subcommittee on total force. "But I assure you: We are ready for this."

Improvements have covered pre-deployment health to post-deployment screening and counseling, Taylor said.

"We believe in a life-cycle approach to health care that starts with accession and lasts as long as the member is in uniform, and beyond," he said.

Taylor told the panel that Air Force Medical Service airmen are also more prepared than ever.

"Training such as our advanced trauma training and our Readiness Skills Verification Program assure our wartime skills are current," Taylor said.

Taylor said that the move to expeditionary medicine enabled AFMS to send medical forces forward rapidly, both in the initial deployment of Operation Enduring Freedom and now Operation Iraqi Freedom.

"The capabilities we bring to the fight today provide troops a level of care that was unimaginable just 10 years ago — capabilities that make us a lighter, smarter, faster ... medical service," Taylor said.

A key component of this change has resulted in preventive medicine teams arriving in deployed locations on the very first planes, Taylor said. These small teams provide vital food- and water-safety capability. They also begin collecting environmental and hazard data, work closely on tent siting, and provide basic medical care.

The surgical units, or Expeditionary Medical Support units called EMEDS, can be on the ground shortly thereafter — "perhaps within as little as three to five hours," Taylor said.

EMEDS are comprised of rapidly deployable medical teams that can range from large tented facilities with specialized services to five-person teams carrying backpacks. These five-person mobile field surgical teams travel with 70-pound backpacks which hold enough medical equipment to perform 10 life-saving surgeries anywhere, at anytime and under any conditions.

In six months supporting Operation Enduring Freedom, one field team performed 100 in-the-field surgeries; 39 were combat surgeries.

"When our sick or injured troops must be removed from the theater and transported to definitive care, we have a state-of-the-art aeromedical evacuation system," Taylor said.

Taylor described the newly created patient support pallets, which are rolled onto transport aircraft, unfolded, unpacked, and within minutes, convert that aircraft into an aeromedical evacuation platform.

He termed the pallets a "monumental advancement" from the Air Force's traditional use of dedicated platforms like the C-9 Nightingale, or extensive reconfigurations of other transport aircraft.

"This saves cargo space, but, more importantly, it saves lives," Taylor said.

Taylor singled out one other major advance: the ability to move large numbers of more critically injured patients.

He said that "our outstanding aeromedical evacuation teams" have been enhanced by the addition of critical care air transport teams, which attend to patients throughout some flights, providing life-saving, intensive care in the air.

In 2002, 1,352 patients were transported in support of Operation Enduring Freedom, of whom 128 were critically ill or injured.

"It is important to note that our new programs can be woven seamlessly into the joint medical capability," Taylor said.

He described an incident in Afghanistan where an Army Apache helicopter crashed and both pilots had massive facial and extremity fractures. Within 17 hours, Army and Air Force medics had delivered them to a military hospital in Europe for surgery.

"Together, the three medical services have built an interlocking system of care for every airman, soldier, sailor, Marine and Coast Guardsman.

While troops are in theater, their health surveillance continues, Taylor said. "Using automated systems, we have documented and centrally stored more than 11,600 deployed patient records since 9-11.

"Tools are now in place to collect relevant environmental health data and forward them for centralized analysis. This linkage between individual patient encounters and environmental data is critical to any future epidemiology studies," he said. ■



Lt. Gen. (Dr.) George Peach Taylor Jr. is the Surgeon General of the Air Force, Headquarters U.S. Air Force, Bolling Air Force Base, Washington, D.C.

News from Around the World



Close Quarters



U.S. Air Force photo by Tech. Sgt. Lisa M. Zunzanyika

LANGLEY AIR FORCE BASE, Va. — Airmen and soldiers team up to push one of two Army CH-47 Chinook helicopters onto a C-5 Galaxy. The soldiers are assigned to Detachment 1 Bravo Company, 5-159 Aviation Regiment out of Fort Eustis, Va. They are deploying to an undisclosed location supporting Operation Enduring Freedom. Since Sept. 11, 2001, air mobility support has included moving more than 445,578 tons of cargo and more than 447,407 passengers throughout the U.S. Central Command area of operations. C-5 Galaxy aircraft have flown almost 25 percent of Southwest Asia airlift missions.

Bush Establishes Medals for Global War on Terror

WASHINGTON — President Bush has issued an executive order establishing two military awards for actions in the global war on terrorism.

The president signed the order March 12 establishing the Global War on Terrorism Expeditionary Medal and the Global War on Terrorism Service Medal.

A White House spokesman said the medals recognize the "sacrifices and contributions" military members make in the global war on terror.

The Global War on Terrorism Expeditionary Medal will be awarded to servicemembers who serve in military expeditions to combat terrorism on or after Sept. 11, 2001. Operation Enduring Freedom is the

prime operation the medal may be awarded for. Personnel assigned to operations in Afghanistan and the Philippines are examples of servicemembers who will receive the award.

The Global War on Terrorism Service Medal will be awarded to servicemembers who serve in military operations to combat terrorism on or after Sept. 11, 2001. Operation Noble Eagle is an example of the type of operation the medal may be awarded for.

The awards do not take the place of the Armed Forces Expeditionary Medal, established Dec. 4, 1961, or the Armed Forces Service Medal, established Jan. 11, 1996.

"Any member who qualified for



War on Terrorism
Expeditionary Medal

War on Terrorism
Service Medal

those medals by reason of service in operations to combat terrorism between Sept. 11, 2001, and a

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terminal date to be determined by the Secretary of Defense, shall remain qualified for those medals," the executive order reads. "Upon application, any such member may be awarded either the Global War on Terrorism Expeditionary Medal or the Global War on Terrorism Service Medal in lieu of the Armed Forces Expeditionary Medal or the Armed Forces Service Medal."

No one may be awarded more than one of the four medals for service in the same approved expedition or operation to combat terrorism. No one is entitled to more than one award of the Global War on Terrorism Expeditionary Medal or the Global War on Terrorism Service Medal.

The medals may be awarded posthumously. DoD and military service officials, including the Coast Guard, are working on provisions to award the medals. ■

DoD Approves Expanded Health Coverage for Reserve Family Members

ASHINGTON — Two major changes effective immediately will make it easier for Reserve Component family members to receive health care coverage from the Defense Department when their sponsor is activated, the department's top doc said.

The first change shortens the time Guardsmen and Reservists must be activated — from 179 to 30 days — for their family members to be eligible for enrollment in TRICARE Prime, the military's most comprehensive health care option.

Dr. William Winkenwerder, assistant secretary of defense for health affairs, said department officials were "pleased and delighted" to make the changes.

"We realize that Reserve members and their families have a need for health care when Reservists are called up for active duty," he said. "We wanted to make the use of that benefit easier and more comprehensive."

Officials noted that family members are eligible for coverage as soon as their

sponsor is activated as long as that activation will exceed 30 days.

The second important change has to do with a program called TRICARE Prime Remote for Active Duty Family Members. Under the program, families of military members stationed in areas far from military medical care still receive the same level of treatment at comparable cost. Typically, recruiters and ROTC cadre and their families use this benefit if they're located at least 50 miles from a military clinic or hospital.

Previous wording in the rules covering this benefit stated family members must live with their sponsor in an area not covered by a military medical treatment facility.

This created a problem for Reserve families whose sponsors were activated. If Reservists are activated, chances are they've been sent away from their homes. Obviously, family members can't move with activated Reservists in most cases, so this led to many being denied enrollment in Prime Remote.

"There was a clause in the law that

said that the family must reside with the active duty ... member. There was some confusion and some difficulty in coming to a clearer definition of that," Winkenwerder explained.

"Reading it one way meant it would have been very difficult for those family members to use the benefit, because they would have had to follow the servicemember."

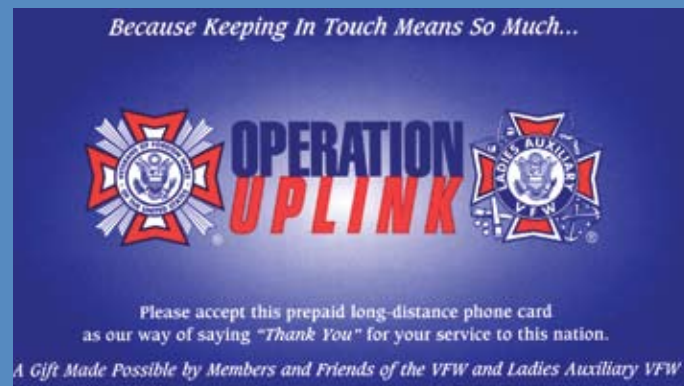
The new wording clarifies that regardless of where Reserve Component members are deployed, their families are eligible for coverage under this program if the military members' regular home is in a covered location.

"What we've made clear is that wherever that servicemember was living with his or her family, [the family members] are eligible right then and there," Winkenwerder said.

He said the two changes have been "very well received" in the Reserve community. "And we're very glad we're able to do this." ■

Support The Troops

Operation Uplink is a unique program, operated by the Veterans of Foreign Wars, that keeps military personnel and hospitalized veterans in touch with their families and loved ones by providing them with a free phone card. Using contributions from private donations, Operation Uplink purchases phone cards and distributes them to servicemembers and veterans who are separated from loved ones. More than 2 million phone cards since 1996 — almost 900,000 since November 2002. To learn more about this program, go to <http://www.operationuplink.org>



Q Can you tell me a little more about this new mystery respiratory illness that I've been reading about in the news? Is it contagious, and can I get it?

A You have probably read or heard of the outbreaks of a respiratory disease that is spreading in the Asian continent, with isolated cases in Europe and North America. The Department of Defense, through the Military Health System, is actively involved in monitoring this outbreak, and supporting both international and U.S. health authorities as needed. I want to provide you with some important facts, as we know them today.

What is this outbreak?

The outbreak, known as Severe Acute Respiratory Syndrome, or SARS, is a severe form of pneumonia that appears to have originated in China. Thus far, these outbreaks have spread primarily to close family contacts of the suspect cases, and healthcare workers involved in care of

the pneumonia cases. It appears that direct, close contact with infected persons is necessary for transmission.

Where has the outbreak occurred?

In mid-February, the People's Republic of China reported over 300 cases of atypical pneumonia, with five deaths, in Guangdong Province. Since then, the CDC has received reports of outbreaks in a number of other countries to include Hong Kong, (a special administrative region of China), Vietnam, Taiwan, Singapore, Thailand and Canada.

The United States has seen a number of cases, but no confirmed deaths at this time. All suspected cases of SARS are being actively investigated by state and local health agencies."

Because cases have been reached North America with eight cases and



Dr. William Winkler, Jr.

two deaths confirmed in Canada, the CDC has issued an alert for physicians and travelers in the United States to be cognizant of flu-like symptoms, to consider recent travel and contacts, to seek medical attention if ill, and to report possible cases. This alert offers information to the health community and

the traveling population to make decisions regarding patient care and personal travel plans. These alerts and more detailed information, to include a brief case definition, are available on the CDC Web site at <http://www.cdc.gov/ncidod/sars/>.

Is this a virus or bacteria?

The World Health Organization and CDC are still in the early stages of their investigation, and it is still

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vaccines

DRUGS & HERBS

Q My husband and I have been in the Marine Corps about five years now. He wears the uniform, but I am an integral part of his career. He is about to deploy, and I am extremely concerned about his health and safety, particularly regarding this smallpox vaccination he is to receive. He is not one to complain about anything health-related, but I know he has a skin condition for which he hasn't sought medical treatment. From what I have read, you are not supposed to receive the smallpox vaccine if you have skin conditions. Can he be exempted from receiving the vaccine? What happens if he doesn't tell anyone and receives the vaccine?

A Questions similar to this are frequently asked, and are very important for everyone to understand. First, I appreciate

your dedication and sacrifice just as much as your husbands — without your support, your husband would not be focused on the mission at hand, subsequently increasing the risk of an already risky business.

I have heard the phrase "toughing it out" that refers to a servicemember refusing to disclose a medical condition because he or she thinks it will negatively impact career progression. Whether it does or doesn't have an impact, I honestly can't say. I do know that



Cmdr. Gene DeLara, MSC, USN

any perceived benefit from "toughing it out" is usually short-term and the negative consequences in doing this are usually long-term. He should seek care for whatever medical condition he has. It's probably easily treated and probably will have no impact on his ability to deploy or his career.

Now, back to the smallpox vaccination matter. You are correct about certain skin conditions being contraindication to receiving the smallpox vaccination. However, skin conditions run the gamut of a simple wart to severe eczema encompassing large areas of the body. One poses no

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Urgent Need For Blood Donors To Help Maintain Military Supply

The Defense Department's Armed Services Blood Program Office supplies all deployed forces with blood collected from the 21 military donor centers in the United States, and when necessary purchases some blood from civilian collection agencies, according to the director, Army Col. G. Michael Fitzpatrick.

"The need for donors is constant because red blood cells are only good for 42 days after you donate them," he said at the Pentagon April 4. "In order to treat military casualties

"The need for donors is constant."

every medical unit must have a

readily available supply of blood. Shipments are made every week to rotate the inventory and make sure blood is on hand for any casualty who may need a transfusion.

"There is a special need right now for donors with Type O blood,"

Fitzpatrick said. "The Armed Services Blood Program Office has issued a plea for military members and retirees, their family members, and others eligible to donate blood in military facilities to contact their local military blood donor center to make an appointment and donate on a regular basis."

Locations of local donor centers and other information is available at <http://www.tricare.osd.mil/asbpo/>.

If there is no military donor center nearby, Fitzpatrick said, people can still help the Armed Services Blood Program Office by supporting agencies where the Armed Services Blood Center purchases blood. These include America's Blood Centers at <http://www.americasblood.org/> and the American Red Cross at <http://www.redcross.org/donate/give/>.

Right now, he noted, the Armed Services Blood Program Office is limiting its purchases to type O

negative liquid red cells because it has been able to meet all other requirements. ■

Editor's Note: As of January, all 17,000 units shipped to date in support of Operation Enduring Freedom have come from DoD blood collection centers. The need for blood and its byproducts tends to rise significantly during contingency operations. If you have any questions about the entire blood donation process, go to the Armed Forces Blood Program Office Web site at http://www.tricare.osd.mil/asbpo/donor_info/donating.htm

O do we need you!

Type O is the universal blood type. It is what we ship to the front lines because everyone can use it.

If you have Type O blood, please donate. You'll be supporting our troops and saving a life!

ASBP
Armed Services Blood Program

DoD Has New Plan For Monitoring Deployment Health Care

by sgt. 1st class doug sample, usa american forces press service

The Defense Department has changed the way it will track and assess the health care given military personnel before, during and after deployments, said a senior Pentagon health official.

DoD's new strategy emphasizes health care surveillance of deployed personnel, said Dr. Michael Kilpatrick, deputy director, Deployment Health Support Directorate in the office of the deputy assistant secretary of defense (health affairs) for Force Health Protection and Readiness.

Officials, he said, want no repeat of 1991 Gulf War health care problems, referring to widespread instances reported of deployed personnel returning home with incomplete and poorly maintained medical records and improperly monitored illnesses.

Kilpatrick said DoD is concerned with taking care of the health of its military personnel and their families.

"To do that optimally, we need to provide preventive care," he said. "And, if a servicemember becomes ill or is injured, we need to provide treatment for them."

After a deployment, he added, personnel need to know that DoD will provide them with care for any medical problem they may develop.

This force health protection strategy is designed to help DoD track servicemembers' diseases

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DoD is concerned with taking care of the health of its military personnel and their families.

Army Medics Treat Ailing Afghans

by pfc. matthew acosta
49th public affairs detachment (airborne)

As Operation Enduring Freedom continues, U.S. forces in Afghanistan are waging war on another front line — combating sickness, disease and infection among Afghan families.

“Our mission in the theater of operation is to provide Level III [surgical] health care to coalition soldiers, or health care to anyone in danger of losing their life, limbs or their eyesight,” said Army Reservist Lt. Col. James Post, commander of the 339th Combat Support Hospital. “However, now that the country is stabilizing, we will begin to provide health care to the local population through MEDCAPs [medical civic action programs].

“The MEDCAPs are not designed to do heart transplant operations or serious surgical procedures,” Post explained. “They’re to provide primary care for the most basic illnesses.”

During a MEDCAP at a refugee camp several kilometers north of Kandahar Air Field, Post said most women were hesitant to take advantage of this medical assistance,

due to their culture. But after seeing doctors examine children, they assembled in the triage area, where initial medical assessments were performed.

“This was my first humanitarian aid mission, and I’m not sure if I was ready to see what I saw,” said Army Capt. Jon Baker, commander of Company C, 82nd Forward Support Battalion.

“Knowing that some of these children wouldn’t live because of disease, war or exposure broke my heart. It almost brought tears to my eyes,” he said.

Military-contracted interpreters helped overcome the language barrier.

The doctors treated illnesses such as the flu, pneumonia, eye infections, skin infections, ear infections, malnutrition, diarrhea, fever, worms and parasites.

“Most of the patients had symptoms for what we refer to as common illnesses,” said Army Capt. (Dr.) Keith Lemmon, a field surgeon and pediatrician. “But ... having a common illness and not



treating it properly causes the illness to spread through the families and get potentially worse for that person.”

“It was sad to see these people suffering from sicknesses that would never occur in the states,” said Army Spc. Tony Fantasia, a medic with the 339th Combat Support Hospital. “However, it was gratifying to know what little help we were providing would make such a large impact.”

“Most of the problem originates with the absence of enough clean water ... to drink and bathe themselves with,” Post said. “If they bathed regularly, the number of skin disorders would drop dramatically.”

Education on matters of hygiene and sanitation is key, said Lemmon.

“If we could teach the Afghan people now, while the country is stabilized, and educate them in basic health care and proper sanitation and hygiene, maybe by the time we leave here there could be an infrastructure in place, and they could begin to care for themselves,” Post said.

Providing humanitarian aid to the people proved to be a learning experience not only for the Afghans, but for the soldiers as well.

“In the last five months I’ve learned more about medical treatment and learned how to treat patients, both soldiers and civilians, than I’ve learned in the last eight years being an EMT [emergency medical technician],” Fantasia said. “Treating the locals and seeing how they live, gives me a new respect for the things that I have back home.” ■



Ask The Doc

— Continued from Page 5
unknown if this is a virus or bacteria. The pattern of transmission is what would typically be seen from a contagious respiratory illness or a flu-like illness. There is no evidence to suggest that this is a purposeful act of bioterrorism. At this stage, however, investigators are not ruling out any possibility.

How can I reduce my risks of acquiring the disease?

Many illnesses are transmitted from one person to another through direct or indirect contact between people. This includes both respiratory and intestinal illnesses, from minor to severe. An example of direct contact is shaking hands with a sick person. An example of indirect contact is touching a door knob - or any object - that someone else with an illness has recently handled. Another form of indirect contact is through small droplets that someone has sneezed or coughed into the air.

There are a few simple measures that have been proven to be effective in decreasing transmission of these illnesses. They include:

- Washing your hands often,

especially if there are ill people around you.

- Touching your face less often (to decrease moving infectious particles on your hands to your mouth and nose).
- Covering your mouth and nose if you cough or sneeze
- Decreasing unnecessary time spent close to others who are sick.

Many people are concerned about SARS now. Medical scientists are studying this disease intensely to learn how to stop the epidemic. While our knowledge is far from complete at this stage, it seems clear that taking the precautions above will decrease your chances of getting SARS, if you are exposed to someone with it.

What organizations are in charge?

The World Health Organization, based in Geneva, has taken a leading international role in investigating and confirming the outbreaks. The Centers for Disease Control and Prevention is the lead U.S. agency. The CDC is providing significant assistance to the WHO, and is also thoroughly investigating the outbreak and taking aggressive steps to reach those who have traveled to the affected areas.

What is the Department of Defense doing?

"In DoD, our infectious disease surveillance systems are closely monitoring for disease trends and possible cases. My office will receive daily updates on our health care surveillance of DoD beneficiaries across the globe. In addition, our military laboratories are supporting both CDC and WHO as needed.

The most important action for all beneficiaries is to remain informed, and to communicate with your health care provider if you are concerned about a medical problem. We will provide updates to you as they occur on this site, and also recommend you visit the CDC Web site <http://www.cdc.gov/ncidod/sars/> if you have questions.

William Winkenwerder Jr., M.D., M.B.A., is the assistant secretary of defense for health affairs. He serves as the principal staff assistant and advisor to the secretary of defense for all the Department of Defense health policies, programs and activities, and subject to the direction of the secretary of defense, exercises oversight of all Department of Defense health resources.



Seal The Deal

OPERATION ENDURING FREEDOM — Senior Airman Michael Campbell checks for a seal on his oxygen mask before a live-fire joint rescue exercise with a foreign national air force firefighting team March 10. Campbell is assigned to the 320th Expeditionary Civil Engineer Squadron at a forward-deployed location. The exercise was designed to improve communications, cohesiveness and equipment familiarity.

U.S. Air Force photo by Staff Sgt. Matthew Hannen

VA Extends Benefits for Gulf War Family Members Through 2003

Editor's Note: This article was originally published on GulfLINK on May 5, 2000.

There's still time for family members of Gulf War veterans to participate in the Veterans Affairs' Gulf War Registry medical evaluation program. The VA-funded health examination program established in 1994 for the spouses and children of Gulf War veterans has been extended to Dec. 31, 2003. The law authorizes the VA to continue to provide examinations to the spouse or child of a Gulf War veteran who is experiencing illness and is registered in the VA Gulf War Registry medical evaluation program.

The provision to extend the program was included in the Veterans

Millennium Health Care and Benefits Act, Public Law 106-117, signed by former President Clinton on Nov. 30, 1999. The law ensures the continuation of vital health care services for the nation's veterans into the next century as well as the timeliness and quality of the Veterans Administration health care system. Authority for the program was established by Public Law 103-446. It was first extended by Public Law 104-262 in 1996, and again in 1998 by Public Law 105-368.

To be eligible for participation in the program, an individual must be the spouse or child of a veteran who is listed in the VA's Gulf War Veterans Registry and has — or previously had — an illness or disorder, including a birth defect, miscarriage or still

birth, that can't be disassociated from the veteran's service in the Southwest Asia theater of operations. Participants must also grant the VA permission to include relevant medical data from the evaluation in the registry.

As of February 2000, more than 4,000 family members of Gulf War veterans have requested a Gulf War Registry examination. To facilitate access to the benefit, the program now allows for individuals to receive the exam through their private physician, once a request has been submitted to the VA's helpline.

Individuals interested in registering for the program should contact the VA at (800) 749-8387. ■

Wilford Hall Conducting Chronic Pain

by sue campbell
59th medical wing public affairs

Wilford Hall Medical Center at Lackland Air Force Base in Texas recently received a \$2 million research grant to study the use of a pain rehabilitation program.

The study is aimed at musculoskeletal system conditions, which are the leading cause of hospitalization and disability for the U.S. armed forces.

The Department of Defense pays more than \$1.5 billion per year to disabled servicemembers, and musculoskeletal conditions account for 40 to 50 percent of this amount.

The grant funds the study of an interdisciplinary chronic pain rehabilitation program, or ICPRP.

"The major hypothesis is that the ICPRP will help military personnel suffering from musculoskeletal

disorders stay on active duty and be fully qualified to perform all their military duties," said Air Force Lt. Col. (Dr.) Alan Peterson, psychology flight commander at Wilford Hall and leader of the study. "The program will teach participants strategies to reduce or better manage their pain and improve their quality of life."

Peterson said that despite continuous advances in military medicine, the rates of disability cases within the military have increased at an alarming rate, nearly doubling between 1985 and 1994.

"The medical discharge of one active duty U.S. military member in their 20s costs the government approximately \$250,000 in lifetime disability costs, excluding health care expenses," the doctor said. "Musculoskeletal system conditions

are the single most common reason for medical discharges from military service."

Peterson will conduct the pain study in collaboration with Dr. Robert Gatchel from the University of Texas Southwestern Medical Center in Dallas. The study is expected to take about four years to complete and will involve military patients referred to Wilford Hall and nearby Brooke Army Medical Center from around the world.

"There is a clear need for clinical research to develop evidence-based assessment and treatment approaches to decrease the cost associated with these conditions within the U.S. armed forces," Peterson said. "It's a win-win situation if our research results in money saved and improved quality of life for our patients." ■



No More Glasses or



Photo by Rudi Williams

Army Capt. Steven Kyle Jones has his eyes prepared for LASIK surgery at Walter Reed Army Medical Center in Washington, D.C.

Ask Your Doctor If Laser Eye Surgery Is Right For You

by rudi williams
american forces press service

he trend started a few years ago.

Throngs of professional boxers, football and basketball players, skydivers, pilots, police and firefighters flocking to get laser eye surgery — and coming out all smiles and keen sighted.

Military eye doctors were among those paying close attention.

"All these people were getting these procedures done and seeming to do their jobs safely and without any problem," Army Col. (Dr.) William P. Madigan said, one eye doctor observing the trend.

Madigan wears three hats. He's the consultant to the Army Surgeon General for ophthalmology; the chief of ophthalmology service at Walter Reed Army Medical Center; and the ophthalmology division chief at the Uniformed Services University of Health Sciences in Bethesda, Md.

"We talked to a lot of policemen and firefighters who said they were in such better condition to do their jobs after

having LASIK," he said.

LASIK is the acronym for Laser-Assisted In-Situ Keratomileusis, which means to use a laser to reshape the cornea — the clear covering in the front of the eye — without invading adjacent cell layers. The surgeon cuts a flap in the cornea, leaving a hinge at one end. The flap is pulled back out of the way, and the surgeon then uses a laser to reshape the newly exposed corneal tissue.

After the surgery, which takes about one minute, the flap is put back and left to heal.

"A [firefighter] said losing his glasses going into a burning building would sometimes create a life or death situation," Madigan continued. "A policeman who loses his glasses in a scuffle could be at a disadvantage — perhaps he can't see as well as the person he's trying to apprehend."

The same thing applies to a soldier on the battlefield, the colonel noted.

"He's out there scrambling to get under cover from enemy fire, drops his glasses and can't see more than five feet in front of him," Madigan said. "Now he's no longer an asset to his unit because he can't see and needs somebody to help him get to safely. Then he needs to get to a place where he can get outfitted with glasses."

Some Gulf War veterans told Madigan about difficulties they had with eyeglasses in the desert.

"In the ensuing years they had refractive surgery and were deployed to Afghanistan," he said. "After returning, they said having laser eye surgery was the best thing the Army ever did to prepare them for combat missions — the single best thing the Army ever did for them."

"It gives them confidence and good vision without optical devices, and they really benefited from it on the battlefield," the colonel said. "They say the difference between being in Desert Storm with glasses and to being in Afghanistan after laser eye surgery was like night and day."

Madigan said people who have LASIK are very comfortable because the surface



Air Force photo by Tech. Sgt. Lance Cheung

A patient receives laser eye surgery at Wilford Hall Medical Center at Lackland Air Force Base, Texas. Air Force doctors have performed the procedure, known as photorefractive keratectomy, on more than 4,000 servicemembers.

of the cornea hasn't been disturbed and the reshaped tissue is protected once the flap is back in place.

"They typically see 20/20 within an hour after the procedure," he said. "They're very comfortable and do well right off the bat."

The comfort level isn't the same with the refractive surgery procedure called PRK, or photorefractive keratectomy. There's no flap-cutting, but instead the laser burns right into the surface layers of the cornea. That's similar to having a corneal abrasion, the doctor explained. Consequently, patients who have PRK have to wear bandage contact lens over the cornea for about four days after the procedure.

"With the PRK you don't see real well right off the bat because the epithelium has to heal over the next few days," Madigan said. "It can be a little uncomfortable. Some people require more pain medicine than others, but the visual results are the same overall."

Although doctors have done LASIK internationally for more than 10 years, the first U.S. clinical trials started in 1995.

But the Navy started studying the effects of laser eye surgery even earlier — in 1993. Then Navy Cmdr. Steven C. Schallhorn started a refractive surgery

program at Naval Medical Center San Diego. He was doing preliminary studies on the Navy's special operations SEAL teams using PRK, Madigan noted.

Schallhorn, now a captain, found that after PRK, SEALs no longer had to worry about losing their glasses or having a contact lens float or fly away when they were in water or parachuting from an aircraft. And they could wear protective masks without a special refractive insert that limits their peripheral vision.

That was harmonious music to the ears of Madigan and other Army officials studying the possibility of using PRK/LASIK to improve readiness.

"We said, 'maybe this has some applicability to the broader military,'" Madigan recounted. "Servicemembers are a physically active, relatively young population. They're often in remote sites that don't have optical shops if they lose their glasses or break a lens."

The Army's first PRK/LASIK site opened in May 2000 at Fort Bragg, N.C. More than 5,000 soldiers from XVIII Airborne Corps and the Special Operations Command have since been treated with outstanding results, he said.

"Our results are even better than civilian studies have quoted," Madigan noted. "I think that's because of how careful we are in our patient selection.

We can just pick the patients we think it's going to be most helpful for."

The current policy among the services says that just about any active duty person can have either PRK or LASIK. Those who have had PRK can get a blanket waiver for the Special Forces Qualification, Combat Diving Qualification and Military Free Fall courses. PRK and LASIK are both waived for Airborne, Air Assault and Ranger schools.

However, those who have had LASIK must enroll in an observational study, if a slot is available, to undergo training in Special Forces qualification and aviation school. LASIK is strictly disallowed for combat divers and free-fall parachutists. Researchers want to ensure the flap does not create problems in these unique environments before granting routine waivers.

Madigan noted that the Air Force is providing PRK for certain of its personnel, but the service isn't conducting LASIK studies in its aviation community yet. But the Air Force will take people who have had PRK and allow them to enroll in a study they're doing for Air Force pilots.

Madigan emphasized that PRK and LASIK aren't part of the TRICARE

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Bio Detection: Reservists Keep

Providing biological surveillance via biological integrated detection systems in danger areas is their mission.

by sgt. w. cullen james, usa
11th public affairs detachment

AGRAM, Afghanistan — Sometimes being unique presents its challenges. Being one of two units of its kind, the 310th Chemical Company is a rare resource.

Providing biological surveillance via biological integrated detection systems in danger areas is their mission, and one platoon keeps a watchful eye over Bagram every night.

The 25 soldiers from 5th Platoon, 310th Chemical Company, an Army Reserve unit based out of Fort McLellen, Ala., operate three biological integrated detection systems stations around Bagram's airfield. The stations monitor for the presence of biological weapons.

"We're there every night. Seven days a week," said Army Reserve 1st Lt. Stephanie Zeigler, platoon

leader, 5th Platoon, 310th Chemical Company.

Their rarity has come at a cost. The chemical unit was activated Oct. 11, 2001, and have been either waiting or on missions ever since.

"After we were activated, we were relocated from Fort McLellen to Fort Polk," said Zeigler. At Fort Polk, La., the 310th was attached to the 83rd Chemical Battalion, who owns the only other biological integrated detection systems unit, the 7th Chemical Company.

Although activated only a month after the Sept. 11th tragedy, the unit stayed at Fort Polk several months before deploying on a mission.

"It was really hard at Polk," said Spc. Kevin Jones, a biological integrated detection systems operation specialist. "We pulled a lot of details. It was hard to explain to our family and the folks at work the importance of being activated while there."

On mission, both Ziegler and Jones explained that the motivation of the soldiers has never been higher.

"Some parts have been great. The fact that we're doing our job is great. I wanted to be able to tell my grandchildren that I did my part," Ziegler said.

"Here, you feel like you have a mission in life," Jones explained.

The unit was deployed to theater in December 2002 and replaced one of their sister platoons in place. They anticipate being replaced by automatic units, called Porta Shields, and to return to Fort Polk in June.

Upon redeployment, the unit should deactivate shortly thereafter.

"Legally, we are only supposed to be activated for two years," Ziegler said. "Of course, if war is declared, that goes out the window."

While Reserve units may be called up for such a period of time, Ziegler said, most Reservists have been surprised at the length of time the 310th has been active. ■

Health Strategy

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and injuries and to provide them comprehensive follow-up treatment for deployment-related health conditions, he said.

Kilpatrick directs the DoD effort to protect the health of deployed service-members. He noted there was no unique screening being done prior to deployment during the Gulf War. "If you were on active duty, you were generally assumed to be deployable," he said.

Now, he said, the Defense Department plans to see that force health is closely monitored through a series of medical assessments before and after deployment and that health concerns are documented and closely monitored.

Kilpatrick said the pre- and post-deployment health assessment is a brief series of questions that look to see if troops are physically and psychologically prepared to deploy. The forms can be found on DoD's deployment Web site at http://deploymentlink.osd.mil/deploy/dep/health_asses.shtml.

"[The assessment is] an opportunity for them to bring up any medical conditions that occurred to them in the last several months or in the period since their last physical examination. It's a quick check to make sure they are ready to go," he said.

The health assessments are done on paper and checked by a physician "to see if there are any changes in service-members' health or condition that may require attention before or after they deploy," Kilpatrick said. Later, the forms are sent to Walter Reed Army Medical Center in Washington, D.C., where they are scanned electronically and retained for analysis.

DoD has established three deployment health centers, one each for health surveillance, health care and health research. They focus on the prevention, treatment and understanding of deployment-related health concerns. Two centers are at Walter Reed; the third is at the Naval Health Research Center in San Diego.

DoD will improve deployment-related medical recordkeeping through its Composite Health Care System II and the Theater Medical Information Program, which is still being tested.

Kilpatrick said the two systems will collect immunization data electronically through a centralized data bank, along with computerized medical files currently being gathered on deployed military personnel from all the services in order to document deployment-related health problems.

He noted that Special Forces soldiers deployed to remote areas can now use handheld computers to gather and store medical data on soldiers and then later transmit the data to rear operations headquarters.

Still, pre- and post-deployment health assessments and electronic record keeping are only part of the force protection strategy. Kilpatrick said broader initiatives to protect deployed personnel are expected, and more research is being done.

"We've learned a great deal from deployments over the past 12 years since the Gulf War, and we intend to use those lessons to benefit those who serve today, Kilpatrick concluded. "That's what this program is all about." ■

New Face Paint Equals No Pests



by karen fleming-michael
standard staff writer fort detrick, md.

he diseases insects carry — malaria, dengue and leishmaniasis to name a few — are real health threats in the field, which is why soldiers are issued insect repellent. They're also issued camouflage face paint because they're expected to be able to hide in plain

sight — without giving away their position by swatting at insects.

Yet, until recently, soldiers who needed to use repellent and camouflage face paint at the same time ran into sticky situations.

"If you applied the repellent first and then the face

paint, the paint hindered the repellent's effectiveness. If soldiers reversed the order of application, the repellent made a gooey, smelly mess ... and soldiers weren't using it," said Col. Raj. Gupta, a medical entomologist who's worked on fixing the face paint and repellent problem since 1989.

The idea to unite the two was a soldier-driven initiative, said William

Robertson, a combat developer with the U.S. Army Medical Department Center and School in San Antonio, Texas. Through the Soldier Enhancement Program, which allows troops to weigh in on anything they wear, use or carry, soldiers told the Army they needed the two products to be combined.

"Soldiers, in some cases, weren't using the Army-available products, but were attempting to purchase their own products from the civilian world [to resolve the problem]," Robertson said. "Soldiers should not have to spend their own money to do their job."

Offering a solution to the problem, Gupta and other researchers at the now-closed Letterman Army Institute of Research and the Walter Reed Army Institute of Research blended camouflage face paint with a controlled-released formulation of DEET, the repellent issued to soldiers since 1990.

"We were only successful because of very vibrant and active basic

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Researchers Seek A Better Anthrax Vaccine

by karen fleming-michael
fort detrick, md.

Improved delivery, fewer shots and fewer reactions — that's what the Walter Reed Army Institute of Research hopes to gain for service-members by participating in a Centers for Disease Control and Prevention-sponsored clinical study of the anthrax vaccine.

The study has two goals. The first is proving the anthrax vaccine, manufactured by BioPort Corporation in Lansing, Mich., is effective when subjects are given fewer doses than the normal regimen of six shots delivered at zero, two and four weeks and at six, 12 and 18 months, with annual boosters.

"The [current vaccination] schedule is extremely cumbersome," said Army Col. Janine Babcock, principal

investigator for the Walter Reed Army Institute of Research study trial. "It is expensive to implement, and it is very difficult to support from a vaccine production and logistical point of view."

Babcock said fewer doses also should increase patient acceptance.

"If you have your choice between six shots and three, we'd all pick three," she said.

The second goal is to reduce the side effects of redness, tenderness, swelling and discomfort sometimes associated with the vaccine.

Serious reactions remain statistically rare. Of the 2,120,594 doses given to more than 528,000 servicemembers, 11 people's reactions

were severe enough to result in hospitalizations that were "certainly or probably caused" by the vaccine,

according to a May 2002 Anthrax Vaccine Expert Committee report.

The shot is given subcutaneously, which means the needle is inserted between the skin and muscle.

"When you give vaccines [like the anthrax vaccine] subcutaneously, they work very well stimulating the immune system in a very powerful way, but they can cause more local side effects," Babcock said.

The study hopes to show that intramuscular shots are the best way to deliver the vaccine, which will make it more tolerable for servicemembers who must receive it.

"For years we used a typhoid-fever vaccine, and it was very safe and very effective against typhoid fever — but no one liked it," said Army Col. Alan Magill, deputy director for communicable diseases and immunology and also a study associate investigator. "It caused a really sore arm, and people felt bad for a couple of

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Face Paint

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research that established the physical parameters and theoretical framework that led to the development of these products,” Gupta said. “The knowledge we gained from active basic science research essentially cut in half the time to create prototype candidates.”

The two new camouflage face paints compacts — the brown one has DEET, the green one doesn’t — have five colors for soldiers to use when they hide in plain sight. With the new compacts, warfighters will have all



the colors they need for a deployment anywhere in the world. The plastic compacts contain 20 applications of green, loam (a dark, greenish brown) and sand and 10 applications of white and black, a new color for the military.

“When we talked to soldiers, we found that they really wanted the black color to produce shadow effects and to match their BDU [battle dress uniform] colors,” said Scott Doughty, a biomedical engineer and product manager for the face paint for the U.S. Army Medical Materiel Development Activity.

Since 1996, Doughty and a team from Fort Sam Houston, Texas; Fort Benning, Ga.; Fort Belvoir, Va.; and Natick Soldier Systems Center in Natick, Mass., have helped guide the two products through advanced development by working with the manufacturer, the Food and Drug Administration — because face paint is considered a cosmetic — and the Environmental Protection Agency — because it controls products that

contain DEET.

Developing both the DEET and non-DEET versions was a “happy coincidence” for researchers, Gupta said.

“When we started looking at adding DEET to the face paint, the ‘Big Army’ took notice and said that creating a better face paint that has thermal protection was something they planned to do, so they turned over developing the non-DEET product to the team as well.”

Textile technologist Anabela Dugas has tested the two formulations for their visual and near-infrared protection at Natick since 1998. Just as she does with all military camouflage items, she used a color spectrometer to determine each paint’s reflectant properties, ensuring the readings were within acceptable minimum and maximum ranges for visual protection as well as for defeating night vision goggles.

Once the paint color passed that test, soldiers smeared on the paint and headed for the camouflage evaluation facility that has arctic, woodland, urban and desert scenes. There, researchers donned night vision goggles to confirm if the spectrometer’s readings were accurate.

“What you see through night vision goggles is light, so the sand properties should be the same as the sand face paint so you blend in to the sand background,” she said. The numbers the spectrometer gives for minimum and maximum levels are required specifications for documentation, Dugas said, but seeing through night vision goggles really is believing.

Because the product ultimately belongs to soldiers, researchers took it to the field to see if soldiers liked it. Gupta brought the product to an infantry company in Panama in 1996 for its first study. He knew he was headed toward a successful product, he said, when the soldiers kept the prototypes. Later studies conducted in 1999 by WRAIR researchers Lt. Col. Mustapha Debboun and Col. Dan Strikman in Thailand and by Debboun in Korea in 2001 let seven additional infantry companies test the face paint.

Doughty and the development team focused on packaging issues such as the size and weight of the compact, easy-opening clasps and mirror. The

mirror couldn’t be glass because it needs to withstand the rigors of field life, but it couldn’t be plastic because DEET is a solvent and will dissolve most plastic over time. In the end, stainless steel was the reflector of choice.

“The interesting comment from Korea [trials] is soldiers love the mirror for shaving,” Doughty said. “Once they finished with the paint in the compact, they probably broke the hinge and kept the mirror.”

Though the product has cleared most hurdles, the development team still has work to do, starting with educating soldiers. Because of the team’s work, new specifications are being finalized for any face paint the Defense Logistics Agency may make in the future.

Doughty noted that soldiers who purchase commercial products, like the paint bow hunters use, aren’t getting the safeguards the new face paint offers, with or without DEET.

“Natick Soldier Center has tested all of these,” Doughty said, pointing to his collection of off-the-shelf camouflage face paint compacts. “And they absolutely do not come close to meeting the military specifications for concealment. We need to let soldiers know that though these products are out there, they don’t offer the protection they need.”

The team is also taking on the widely used camouflage face paint sticks to get them up to the same standard as the compacts. In contrast to the 184,000 compacts purchased last year through the supply system, Army units bought almost 300,000 of the sticks. The problem with the sticks, Dugas said, is they offer only visual protection from the naked eye, not from night vision devices. Doughty said the dispenser, which is rolled aluminum and can cut less-than-svelte fingers and easily dislodges its cap, also stands improvement.

Future product improvements include face paint that offers concealment from thermal imagers so heat radiating from the face and hands can’t be detected against their background.

“When we come up with thermal-defeating paint, we will have to see if it interferes with the DEET and if the time-released repellent interferes with the thermal,” Doughty said. “That

Pet Fostering May Be Deploying Troops' Answer for Saving Fido and Kitty

by harry noyes
special to the american forces press service

or the harried soldier, scurrying to wrap up a thousand details before deploying to an unknown future, pet abandonment is a decision born of desperation and fraught with guilt.

For a frightened, bewildered animal, suddenly ripped from a secure and comfortable home and thrust into a terrifying world of shelters — or worse, life as a stray on the streets — abandonment almost always means an early death.

Moved by a love of animals and gratitude to their country's defenders, a growing number of Americans are offering an alternative scenario, pet fostering.

These stay-at-home patriots open their homes to the dogs and cats — and sometimes the rats, parrots, iguanas, boa constrictors and tarantulas — of departing servicemembers who have no one else to care for their animals.

When the servicemember returns, he or she gets to restart life with a beloved family member. The pet is healthy and happy, and the soldier, guilt-free.

The trick is getting servicemembers and foster-caregivers together and making sure that the parties (human and animal) are a good fit for each



other, said Maj. Steven D. Osborn of U.S. Army Veterinary Command at Fort Sam Houston, Texas.

Osborn recommended beginning the search locally. Servicemembers can check with installation veterinary treatment facilities, which may be familiar with local services. But in the

event the veterinary treatment facility isn't, the soldier should not give up.

Check next with local humane societies, animal-control facilities and breed clubs. If that does not turn up a suitable program then cast a wider net regionally or even nationally. Of course, a more distant foster home involves costs for transportation of the animal, but this is a small price for owners who love their pets and feel a sense of responsibility toward them.

Several Internet sites now exist to help servicemembers with general advice on fostering and with brokering services to bring pet owners and foster-caregivers together.

These sites do not assume responsibility for the pets. Even if a site matches up pet owners and pets with potential caregivers, the pet owner is responsible for the final decision to work with a particular caregiver.

It is also the pet owners' responsibility to communicate fully and openly with foster-caregivers, to ensure both sides are comfortable and confident with arrangements, to settle all questions about expenses beforehand, and to draw up a contract outlining such details.

The pet owner is generally responsible for veterinary bills, special foods and the like. The owner may offer a gratuity for the foster-caregiver if he or she wishes to, but most services are set up on the understanding that fostering per se is free of charge to the soldier.

Among the relevant Web sites are these:

NetPets (<http://www.netpets.org>, and click on the "military pets foster project" link at top of home page), is a nonprofit service that says it has recruited and screened 5,000 foster-caregivers. Caregivers must provide references and contact information about their veterinarians. Founder Steve Albin phones the veterinarian



before accepting a would-be fosterer. There is no charge to service-members, who can fill in an online form describing their pets. Albin will then match each pet with one or more suitable foster homes. There are also links for signing up as a foster-caregiver and for donations to support the site.

Feline Rescue (<http://www.felinerescue.net>, and click on "Operation Noble Foster" box), is a nonprofit that says it has received many fostering offers. The site has a database allowing owners to do their own searches for suitable fosterers. Feline Rescue does not screen fosterers itself, but collects screening information for pet owners to study. In turn, it asks owners to provide a "cat resume" to help the fosterer determine whether a particular cat is suitable for his or her home. The site also offers a sample contract form.

The Humane Society of the United States (<http://www.hsus.org/ace/11822>) doesn't offer foster-brokering services, but it has information to assist military pet owners, including a checklist and a sample contract form. The society works with other animal-protection organizations to encourage local shelters to develop fostering programs.

4MilitaryFamilies (<http://www.4militaryfamilies.com/pets.htm>) provides information and tips for taking care of military pets during foster care or moves. ■

Keys to Emergency Preparedness

by Jan Davis
Bureau of Medicine and Surgery

The Sept. 11th terrorist attacks have prompted new emphasis on emergency planning by communities, businesses and organizations. It has even generated the establishment of a new cabinet-level department focusing on the protection of Americans against terrorist attacks.

According to Rear Adm. Philip VanLandingham, director of Navy Medicine's Office of Homeland Security, as good as federal, state, and local governments and organizations are at planning for emergencies and keeping people safe, they can't do it alone.

"Sailors, Marines and their families must make their own personal emergency action plans so they know

what to do, whether for a terrorist attack, a hurricane or a fire," said VanLandingham. "It's wise to plan ahead for emergencies. Make an emergency kit with items such as food and water, and ensure you're informed on what to do in different kinds of disasters."

The U.S. Department of Homeland Security's Ready.Gov Web site, <http://www.ready.gov>, says it's important to think about the places where you and your family spend time — your command, school, work, gym and daycare — and know about their emergency plans. Find out how they will communicate with families

and others during an emergency. Then create your own plan.

The American Red Cross has information for individuals and families' emergency planning based on the Homeland Security Advisory System. Their brochure, "Your Family Disaster Plan," available on its Web site, <http://www.redcross.org>, is a basic "how to" on putting together a plan.

Other planning steps include:

- Know how to contact each other.

If local telephone systems are down, it may be easier to contact out-of-town friends or family members who can then communicate with the separated family members. Family members should carry telephone numbers, a cell phone, a pre-paid calling card or change for a pay telephone.

- Know how and where to get emergency information. Find out what kinds of disasters are most likely to occur in your area and how you will be notified. One common

method is emergency radio or TV broadcast. Some communities use special sirens. Military installations may have emergency workers go door-to-door.

- Talk to your neighbors to see how you can collaborate in an emergency.

You should also make a safety kit for you and your family. The kit should include, as a minimum:

- A three-day supply of non-perishable food and water (one gallon per person per day) as well as a can opener and disposable plates and cutlery.

- One change of clothing and footwear per person and one blanket



Get The Brochure

You can view and print a copy of the Department of Homeland Security's brochure "Preparing Makes Sense. Get Ready Now" at <http://www.ready.gov> or call 1-800-BE-READY (1-800-237-3239) to have a copy mailed to you at home.

or sleeping bag per person.

- A first aid kit, including a supply of your prescription medications. Don't forget to rotate the medicine out before it expires. Consider taking a first aid class.

- A battery-operated radio, extra batteries, flashlight and other common-sense articles are also good to include.

- Sanitation supplies and special items for infants, elderly or disabled family members.

For additional recommendations on what to have in your kit, download "Your Family Disaster Supplies Kit" from the Red Cross Web site. ■

Vaccines, Drugs

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problem. The other would put an individual at risk for a significant adverse event. The medical literature lists *eczema vaccinatum* as a complication from receiving smallpox vaccine when the eczema exists. A health care provider would have to make a determination in the severity, the manner it should be treated, and if the condition meets the requirements for medical

exemption from receiving the smallpox immunization. Please refer to Assistant Secretary of Defense for Health Affairs policy memorandum dated Nov. 26, 2002, which speaks to the various types of exemptions as a result of medical and administrative conditions or situations. The policy can be read on the Smallpox Web site at <http://www.smallpox.army.mil/media/pdf/SPclinicalpolicy.pdf>.

Furthermore, each service publishes specific implementation policy, which should be of particular interest to you and your husband. ■

Cmdr. Gene DeLara, Medical Service Corps, U.S. Navy, serves as the medical planner in the Deployment Health Support Directorate. He has a Doctorate of Pharmacy and a Masters of Business Administration. DeLara is both a pharmacist and medical planner holding the 1805 Plans, Operations, and Medical Intelligence specialty code.

Is Your Refrigerator Making You Sick?

by lori tubbs
navy environmental health center
portsmouth, va.

Food-borne illnesses most often heard about are those involving eating establishments. Someone becomes ill after eating an undercooked hamburger, unwashed produce or bacterial-infected meat or poultry. Officials then inspect the place and often levy fines for not meeting sanitation and food-safety standards.

However, according to a national consumer survey, the most common place to get a food-borne illness may be your own refrigerator. If food inspections were given to residences in the United States, the number of violations would be astronomical.

While most consumers are concerned about food safety, few follow basic guidelines, such as using a thermometer to check their refrigerator's temperature. The survey found an overwhelming 91 percent of consumers felt it is important that a refrigerator be set at the right temperature, yet 60 percent didn't know their refrigerator should be set below 40 degrees Fahrenheit. More alarming was that 32 percent thought the temperature should be set higher than 40 degrees.

Here are some simple tips to remember for safe refrigeration of food at home:

- Set the temperature below 40 degrees, using a refrigerator thermometer found in hardware and home-supply stores. Place the thermometer in the center of the middle shelf and check it regularly.
- Keep your refrigerator clean. Immediately wipe up spills with hot, soapy water and rinse.
- Refrigerate or freeze meat and poultry the minute you get home from the store.
- Thaw foods in the refrigerator, under cold running water or in a microwave just before cooking. Because of room temperature and the high risk for bacterial contamination, avoid using a counter top for thawing food. Remember, the danger zone is 40 to 140 degrees Fahrenheit.
- Make it a weekly habit to throw out expired foods that you no longer should eat.
- Divide leftovers into small portions and store them in shallow, tightly sealed containers (two inches deep or less). Date leftovers so you know how long they've been in the refrigerator. A good rule to follow is to discard cooked leftovers after four days.



- Keep the refrigerator door closed as much as possible, and don't store highly perishable foods like milk or eggs in the door. Store eggs in their carton on an inside shelf.

Remember the two-hour rule for prompt refrigeration. Perishable leftovers from a meal should not stay out of the refrigerator more than two hours. In hot weather (90 degrees Fahrenheit or above), this time is reduced to one hour. When in doubt, throw it out.

Food-borne illness affects millions of Americans each year. Flu-like symptoms such as headache and nausea are common; however, a lot of people think they have the flu and really are suffering from a mild case of food poisoning caused by tiny, living bacterial and viral organisms. Proper food refrigeration is just as important as washing your hands before preparing a meal. ■

Navy Medicine Helps Work the Bugs Out

by marine sgt. david christian
1st force service supportgroup

AMP IWO JIMA, Kuwait — A tiny mosquito bite could transmit a disease such as malaria to an unsuspecting victim and possibly lead to death. One of the most powerful weapons to combat this danger is the sailors from the 1st Force Service Support Group, who use their knowledge of entomology to keep servicemembers healthy while in support of Operation Enduring Freedom.

The specialists focus on pest control, education and surveillance to

accomplish their mission of ensuring troop vigor. The main weapon in their arsenal is insecticide — lethal to insects but safe for humans, when used correctly. The most effective technique is to spray uniforms and mosquito netting with permethrin. Once uniforms are treated with the insecticide, it binds to the fabric and will not wash out. They have sprayed thousands of uniforms and netting for Marines, sailors and soldiers over the past several months.

"When a mosquito or tick lands on the treated uniform, it will pick up tiny particles of the insecticide and die in about 24 hours," said Navy Lt. Pete

Obenauer, an entomologist with 1st Force Service Support Group.

In a camp setting, another combative priority is to rid the area of flies. A simple solution is to sprinkle treated fly bait in the compound. The attracted flies feed and die in minutes.

Education is the second line of defense. The preventive medicine team explains what to look for, what to avoid and how to battle common pests such as flies, ticks, mosquitoes, spiders, rats and snakes.

"My recommendation to Marines and sailors [and soldiers] is to wear bug

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Pest Control

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repellent and use mosquito netting,” said Obenauer. “Since most mosquitoes feed at night, if you have your netting up, you significantly reduce your chances of getting bit.”

Hospital Corpsman 2nd Class Maryjane Guest, a preventive medicine technician, has additional advice.

“Don’t eat in the tents, because the food attracts rats, and the rats attract

Left: Capt. Christily Silvernail, a public health officer with the 438th Expeditionary Medical Group, sets up mosquito traps.

U.S. Air Force photo by Staff Sergeant William Greer

snakes.”

The third line of defense is ongoing surveillance. The team monitors pests by collecting insects from various locations to see if any are carrying diseases.

Obenauer said servicemembers would likely suffer greatly without modern preventive medicine’s attack on pests.

“During World War II, many Marines and soldiers came down with malaria, which incapacitated one of every three Marines,” he said. “We’re not on the front line fighting the bullets, but I like to think that we’re fighting insects so we can keep the forces healthy.” ■

Research

— Continued from Page 13
days with a low-grade fever. So acceptance was very low, even though the vaccine was safe.”

The CDC study is based on pre-liminary results Dr. Phil Pittman found in a study at the U.S. Army Medical Research Institute of Infectious Diseases from 1996 to 1998.

“In his study [of 173 subjects], the people who got the fewer doses intramuscularly had levels of antibodies that were not inferior [to the sub-cutaneous injections] and the reactions were much fewer,” Babcock said.

The current study, funded by Congress in 1999, has three parts: Part A is a human study, Part B is a primate study and Part C is a basic science study. The Walter Reed Army Institute of Research is participating in Part A, which involves testing the change from subcutaneous to intramuscular injection and decreasing the

number of doses.

Part B will test the changed regimens against an aerosol challenge in primates to show whether they are protected from getting anthrax.

Part C will go a long way in helping develop new generations of the anthrax vaccine. Researchers will examine blood samples from people and primates taken at the same times, such as before a dose and after a dose, to find the key things in the immune system that predict protection.

“We want to find out what the best marker of protection is. Once we’ve found that, researchers can use that to help develop the next generation of vaccines and validate them,” Babcock said.

The study will last for 43 months, however, Babcock said a very important question can be answered 18 months after the first subjects enroll: Can clinicians get the same antibody responses while eliminating the two-week shot and giving the first three doses intramuscularly?

After the six-month shot, researchers will compare antibodies of people who received fewer shots and antibodies of people who received the conventional regimen, and the results will be sent to the FDA.

“Hopefully the FDA will respond to that information and revise the license to change the way the initial three doses are given,” Babcock said. “We will be able to positively impact the way vaccine is given within two years. In vaccine development time lines, that’s pretty good.”

Of the five centers in the United States hosting the trials, WRAIR is the only military site. Of the study’s 1,560 subjects, 300 will participate at WRAIR. None will be active-duty military because servicemembers need to receive the shots under the current FDA license.

“WRAIR’s participation in the study is crucial. We wanted to bring in the military’s perspective to the collaboration,” Babcock said. ■

Eye Surgery

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program.

“It’s a readiness program,” he noted. “It’s to make soldiers better at their jobs so they can do their missions more effectively and safely. That’s why it’s called the Warfighter Program.”

The Walter Reed Center for Refractive Surgery had its first patient in March 2002 and has since performed the procedure on more than 600 patients. The waiting list today is more than six months long.

Since PRK and LASIK are readiness issues, line commanders in the Army,

Navy and Air Force prioritize the waiting list, the colonel noted.

“They tell us who we’re doing — infantrymen, artillerymen, armor, special operations and Special Forces. Anybody who is going to be at the line of battle or behind the enemy’s line of battle has first priority,” he said.

The Army offers refractive surgery to soldiers, the Air Force to airmen, and the Navy to sailors, Marines and Coast Guardsmen.

“In May 2000, the Army was doing laser eye surgery at Fort Bragg, the Navy at San Diego, and the Air Force wasn’t doing it anywhere at the time,” Madigan noted. But, he said, it has since expanded.

The Army has operating laser centers at Fort Hood, Texas; Fort Campbell, Ky.; Madigan Army Medical Center, Fort Lewis, Wash.; Tripler Army Medical Center, Hawaii; Landstuhl Regional Medical Center, Germany; Brooke Army Medical Center, San Antonio, Texas; Bragg; and Walter Reed.

The Navy does LASIK surgery at Naval Medical Center San Diego, Calif., and National Naval Medical Center Bethesda, Md. PRK is offered at the Naval hospitals in Portsmouth, Va., and Jacksonville, Fla.; Camp Lejeune, N.C.; Camp Pendleton Marine Base, Calif.; and Naval Station Bremerton, Wash.

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Eye Surgery

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The Air Force performs PRK at Wilford Hall Medical Center, Lackland Air Force Base, San Antonio, Texas; Air Force Academy, Colorado Springs, Colo.; Wright-Patterson Air Force Base, Dayton, Ohio; Keesler Air Force Base, Miss.; and Travis Air Force Base, Calif. LASIK is only done at the academy and Wilford Hall.

Madigan, a U.S. Military Academy graduate and former artillery officer, expounded on the many advantages for servicemembers not having to depend on optical devices — eyeglasses or contact lens — to see clearly. He remembers the difficulties he had with his glasses on maneuvers with the infantry and sleeping in the boonies wrapped up in a shelter half.

"You'd be taking off your glasses every two minutes to wipe off the raindrops so you could see," Madigan noted. "Hygiene in the field is terrible, so you're at much greater risk for corneal ulcers and other problems if you wear contact lenses."

However, he said, contact lens wearers can do physically active things rain or shine and still have better forward and peripheral vision than eyeglass wearers. He pointed out soldiers do better when they don't need glasses to use such things as binoculars or the night-vision goggles used by Apache helicopter pilots.

Preliminary studies on aviators show

enhanced cockpit performance after laser treatment. Night-vision lab researchers at Fort Belvoir, Va., discovered that servicemembers perform better, with higher marksmanship scores after PRK or LASIK, Madigan noted.

"LASIK correction is a permanent change to the cornea that should last you your lifetime," he said. "But there's an enhancement rate that runs around 10 percent. That is, about 10 percent of all the cases you do will need a second laser treatments weeks or months down the road to fine-tune the prescription."

Madigan said PRK and LASIK are best used for nearsighted people, but they also work for farsightedness and astigmatism. The procedures don't work for cataracts or diseased retinas, the doctor said.

"We just fine-tune the physical optics," he said. "We're getting 98 percent to 100 percent of our soldiers to 20/40 or better uncorrected vision [without spectacles]. About 85 percent are 20/20 or better."

A 20/40 correction concerns many patients — that's the cutoff states generally use before drivers have to wear corrective lenses whenever they operate a vehicle, he remarked. Even better results are on the horizon with a new, more sophisticated system that just arrived at Walter Reed.

"We've received the first shipment of the commercially available Ladar Wave, which delivers a more pinpoint treatment option," Madigan said. "Preliminary studies have shown an incredible increase to 20/15 and even 20/10 vision using the system — it bounces an infrared beam into the eye and analyzes the reflection. It can analyze all the different factors that go into poor vision."

"If I were a 21-year-old artillery lieutenant in the field again, I would have had this last week," he said. "It's the best thing around. If I hadn't thought this was safe, effective and predictable, I never would have promoted it as something good for the Army."

Asked why he hasn't had



LASIK to be rid of his own glasses, Madigan pointed to his age and profession. "If I were to be in the less than one-tenth of 1 percent that had a complication, I could lose my livelihood. That's a risk I don't want to take at my age," he noted.

"Maybe I'd come away with best corrected (even with glasses) 20/40 vision rather than the 20/15 I enjoy now. Well, I could drive without glasses and do most things very well — but I couldn't do microsurgery," Madigan concluded. ■



Editor's Note: Laser keratorefractive surgery, commonly called PhotoRefractive Keratectomy (PRK) or Laser-In-Situ Keratectomy (LASIK) is used to improve servicemembers readiness posture through the Warfighter Refractive Eye Surgery Program. Applicants to the Armed Forces are routinely admitted through a waiver process so long as their pre-operative refractive error was less than minus 8.00 diopter, and they experienced a good result which allows them to meet the standard visual qualifications required of all applicants.

Air Force Association
1501 Lee Highway
Arlington, VA 22209-1198
Phone: (800) 727 - 3337
<http://www.afa.org>

American Legion
1608 K St., NW
Washington, DC 20006
Phone: (202) 861 - 2700
<http://www.legion.org>

American Red Cross
17th & D Streets, NW
Washington, DC 20006
Phone: (202) 639 - 3520
<http://www.redcross.org>

American Veterans
4647 Forbes Blvd.
Lanham, MD 20706
Phone: (877) 726 - 8387
<http://www.amvets.org>

Association of the U.S. Army
2425 Wilson Blvd.
Arlington, VA 22201
Phone: (800) 336 - 4570
<http://www.ausea.org>

Department of Veterans Affairs
810 Vermont Ave., NW
Washington, DC 20400
Phone: (202) 273 - 4300
<http://www.va.gov>

Disabled American Veterans
807 Maine St., SW
Washington, DC 20024
Phone: (202) 554 - 3501
<http://www.dav.org>

Enlisted Association of the National Guard
1219 Prince St.
Alexandria, VA 22314
Phone: (800) 234 - 3264
<http://www.eangus.org>

Fleet Reserve Association
125 N. West St.
Alexandria, VA 22314-2754
Phone: (703) 683 - 1400
<http://www.fra.org>

Marine Corps Association
715 Broadway St.
Quantico, VA 22134
Phone: (866) 622 - 1775
<http://www.mca-marines.org>

Marine Corps League
8626 Lee Highway, #201
Merrifield, VA 22031
Phone: (800) 625 - 1775
<http://www.mcleague.org>

National Association for Uniformed Services
5535 Hempstead Way
Springfield, VA 22151
Phone: (800) 842 - 3451
<http://www.naus.org>

National Committee for Employer Support of the Guard and Reserve
1555 Wilson Boulevard, Suite 200
Arlington, VA 22209-2405
Phone: (800) 336 - 4590
<http://www.esgr.org>

National Guard Association of the United States
1 Massachusetts Ave., NW
Washington, DC 20001
Phone: (202) 789 - 0031
<http://www.ngaus.org>

Naval Reserve Association
1619 King St.
Alexandria, VA 22314-2793
Phone: (703) 548 - 5800
<http://www.navy-reserve.org>
Navy League

2300 Wilson Blvd.
Arlington, VA 22201
Phone: (800) 356 - 5760
<http://www.navyleague.org>

Non Commissioned Officers Association
225 N. Washington St.
Alexandria, VA 22314
Phone: (703) 549 - 0311
<http://www.ncoausa.org>

Reserve Officers Association
1 Constitution Ave., NE
Washington, DC 20002
Phone: (800) 809 - 9448
<http://www.roa.org>

Military Officers Association of America
201 N. Washington St.
Alexandria, VA 22314
Phone: (800) 245 - 8762
<http://www.moaa.org>

Veterans of Foreign Wars
200 Maryland Ave., NE
Washington, DC 20002
Phone: (202) 543 - 2239
<http://www.vfw.org>

Vietnam Veterans of America
8605 Cameron Street, Suite 400
Silver Spring, MD 20910-3710
Phone: (301) 585 - 4000
<http://www.vva.org>

OTHER RESOURCES

By Phone

Direct Hotline for Servicemembers, Veterans and Families
(800) 497 - 6261

Deployment Health Clinical Center
(866) 559 - 1627

Department of Veterans Affairs
(800) 827 - 1000

VA Gulf War Registry
(800) 749 - 8387

VA Benefits and Services
(877) 222 - 8387

On the Web

Department of Defense
<http://www.defenselink.mil>

Department of Veterans Affairs
<http://www.va.gov/>

DeploymentLINK
<http://deploymentlink.osd.mil>

GulfLINK
<http://www.gulflink.osd.mil>

TRICARE
<http://www.tricare.osd.mil/>